

HERBICIDE USES AND PROBLEMS

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A weed is a plant growing out of place. Weeds compete with desirable plants for space, nutrition, and water. The presence of noxious weeds costs farmers, nurserymen, and homeowners from 3 to 5 billion dollars annually in crop loss. Mechanical control of weeds by cultivation, hand cutting, and pulling is very useful; however, it is impractical and prohibitively expensive with some crops because of the cost of equipment and labor. It also has limitations in many situations.

In Florida, control of weeds in ornamental nursery stock and in home lawns is of great importance. Two types of chemical control are used, preemergence and postemergence treatments. The preemergence treatment is effective in controlling germinating weed seed but is not effective against established annuals or perennials. The postemergence treatment may control germinating seed and also the growing weeds.



Fig. 1. Characteristic "cabbage head" caused by Eptam on *Pittosporum*. Lasso II may cause similar damage.



Fig. 2. Dwarfing and distortion of *Viburnum* leaves caused by Eptam.



Fig. 3. 2,4,5-T damage to Sycamore showing severe leaf distortion.

Some herbicides are broad spectrum in their ability to kill plants while others are quite selective permitting the elimination of noxious weeds from desirable plants. Some herbicides kill by contact and others kill by both contact and systemic absorption by the weed killing roots and top. Those applying herbicides must consider the possibility of damage to desirable plants. Particular concern perhaps should be given those herbicides that are translocated within plants. Herbicides used in both field and container grown nursery stock must be used with care and should be applied uniformly at the rate recommended on the label and only to those plants which have label clearance. Excessive rates of treatments can cause serious injury to plants you are trying to protect (fig. 1). When applying systemic herbicides for weed control in lawns, avoid placing material where it may be absorbed by roots of desirable ornamentals or trees (fig. 2 and 3). Environmental factors such as wind must also be considered. For additional information contact your extension agent for specific recommendations and helpful publications.

#### References

1. Conover, C. A. 1967. Ornamentals weed control guide. Fla. Agr. Ext. Serv. Circ. 307A. 16 p.
2. Ditmer, W. P. 1961. Pennsylvania weeds. Pennsylvania Dept. Agr. 64 p.